



RFDS 4.00; STANDPIPES

4.1; DESIGN

All standpipe systems in the City of Redmond shall comply with NFPA 14- *Standard for the Installation of Standpipe, Private Hydrant, and Hose* systems, (2000 edition). With the following additional requirements:

- 4.1.1; Standpipes shall be designed to provide 320 g.p.m. at 110 p.s.i. at the most remote outlet in addition to flow rates and pressures specified in NFPA 14.
- 4.1.2; Outlets shall be identified as required by the Redmond Fire Department Fire Marshal or subsequent RFDS Signage Standard.
- 4.1.3; **PLANS & PERMITTING REQUIREMENTS**
 - 4.1.3.1; 3 sets of standpipe plans, stamped and signed by designer, level III state certification for fire protection.
 - 4.1.3.2; Completed fire sprinkler system permit application.

4.2; WHEN REQUIRED

Standpipes shall be required where called for in the 1997 Uniform Building Code Section 904.5 *Standpipes*, Table 9-A, or the following additional requirements. These additional requirements are based upon the Redmond Community Development Guide 20E.100.10-080; Restricted Access Buildings.

- 4.2.1; A minimum class I standpipe shall be required when Table 9-A requires Class I, II, or III systems and installed in accordance with Class I requirements.
- 4.2.2; Standpipes shall be required in any building that has a basement greater than 20,000 square feet.
- 4.2.3; Standpipes shall be required in any building that has multiple levels of below grade parking.
- 4.2.4; Standpipes shall be required in any building three floor levels or more. Exception: Residential occupancies requiring no more than one exit from the third level.
- 4.2.5; Location of standpipe outlets shall be as specified by NFPA 14 (2000 ed.).
- 4.2.6; Standpipes may be required in other situations when directed by the Fire Marshal as mitigation for deficiencies in other fire protection requirements as identified in Redmond Community Development Guide 20E.100.10-080.

4.3; FIRE DEPARTMENT CONNECTIONS (FDC's)

- 4.3.1; Fire Department Connections shall be located within 40' of a fire hydrant, and shall not be located on buildings unless specifically approved by the Fire Marshal. Normally the F.D.C. will be situated on the opposite side of the Fire Department access as to the building in which it protects.
- 4.3.2; F.D.C's located in areas subject to vehicular damage shall be protected. Minimum protection for F.D.C's which are 4' or greater from the center line of the F.D.C. to the driving surface shall be a minimum 6" curb. Where either 4' or 6" is not attainable guard posts per City of Redmond, and Redmond Fire Department Standards are required.
- 4.3.3; All F.D.C's supplying standpipe systems shall be painted on the portion of the standpipe riser which is above ground except for the hose connections which shall remain unpainted. Color coding is as follows:
 - Dry systems- **Yellow**.
 - Wet or combination systems- **Red**.
- 4.3.4; The F.D.C. fitting for standpipe only systems shall have the word "STANDPIPE" in raised letters on the top.
- 4.3.5; All FDC's shall be double clappered 2 ½" NST, female, swivel couplings with breakaway metal caps.



- 4.3.6;** The minimum size of an FDC shall be 4" x 2 ½" x 2 ½". Additional inlets may be required depending on the system volume and fill time.
- 4.3.7;** FDC's shall be identified as required by the Redmond Fire Marshal or subsequent RFDS signage standard.

4.4; ACCEPTANCE TESTING

- 4.4.1;** A functional flow test shall be performed as required for normal system acceptance procedures found in Chapter 9 of NFPA 14 (2000 ed.).
- 4.4.2;** See RFDS 4-A: [Redmond Standpipe Flow Test Guidelines](#)

4.5; REQUIRED MAINTENANCE

- 4.5.1;** Maintenance shall be performed as required by NFPA 25 "Inspection, Testing, and Maintenance of Water-based Fire Protection Systems" (2000 ed.).

4.6; TEMPORARY STANDPIPES

- 4.6.1;** Temporary Standpipes shall be required as per the 1997 Uniform Fire Code Article 87, "Firesafety during Construction, Alteration or Demolition of a Building" Section 8704.4.3 Standpipes.
- 4.6.2;** Temporary Standpipes shall be provided to within 300 feet of all points on a floor level.
- 4.6.3;** Temporary Standpipes shall be hydrostatically tested and approved by the Redmond Fire Department. A hydrostatic test requires 200 p.s.i. plus to be maintained for at least two hours with no leaks.